

Early diagnosis: new pathways and ways of working

Some cancers are more difficult to spot than others, and that, for those with vague symptoms/findings such as weight loss, anaemia and thrombocytosis, siloing of referral pathways forces us to plump hopefully for a site for investigation. The picture is changing and improving.

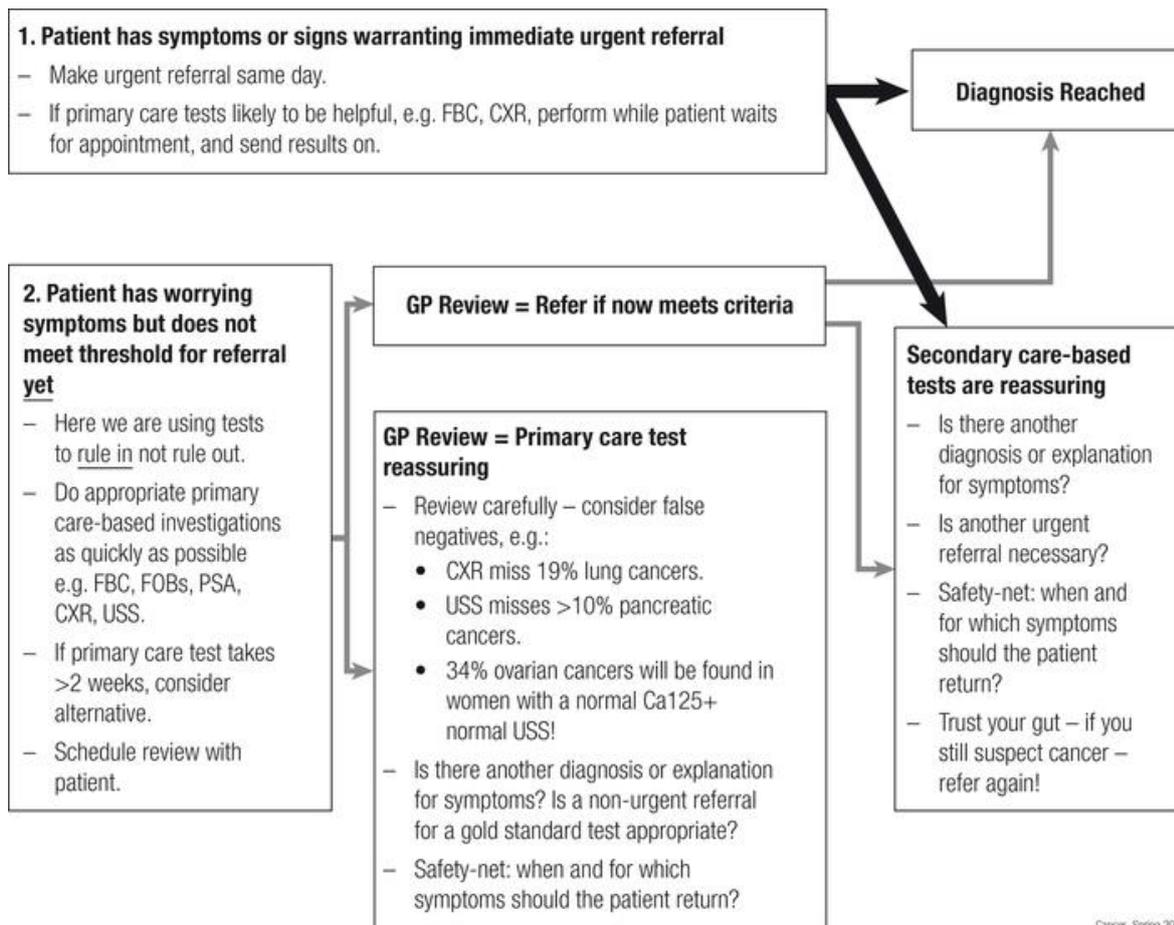
Essentially, for those with vague symptoms:

- We can work logically through a series of investigations in primary care.
- We *would like to be able* to refer to a diagnostic hub where a series of investigations can take place in a rapid and efficient manner – in some areas, this is becoming a reality.

What happens in practice?

The NICE 2015 (NG12) guidelines encourage us to make greater use of primary care-based tests. These tests are generally used to 'rule in' patients to meeting the criteria to access a 2ww referral.

Here is a flowchart that summarises likely current diagnostic pathways from primary care presentation:



Rapid Diagnostic Centres

Making an accurate diagnosis of harder- and intermediate-to-spot cancers requires system-wide change. Primary care-based investigations can sometimes take too long. We need different models of care.

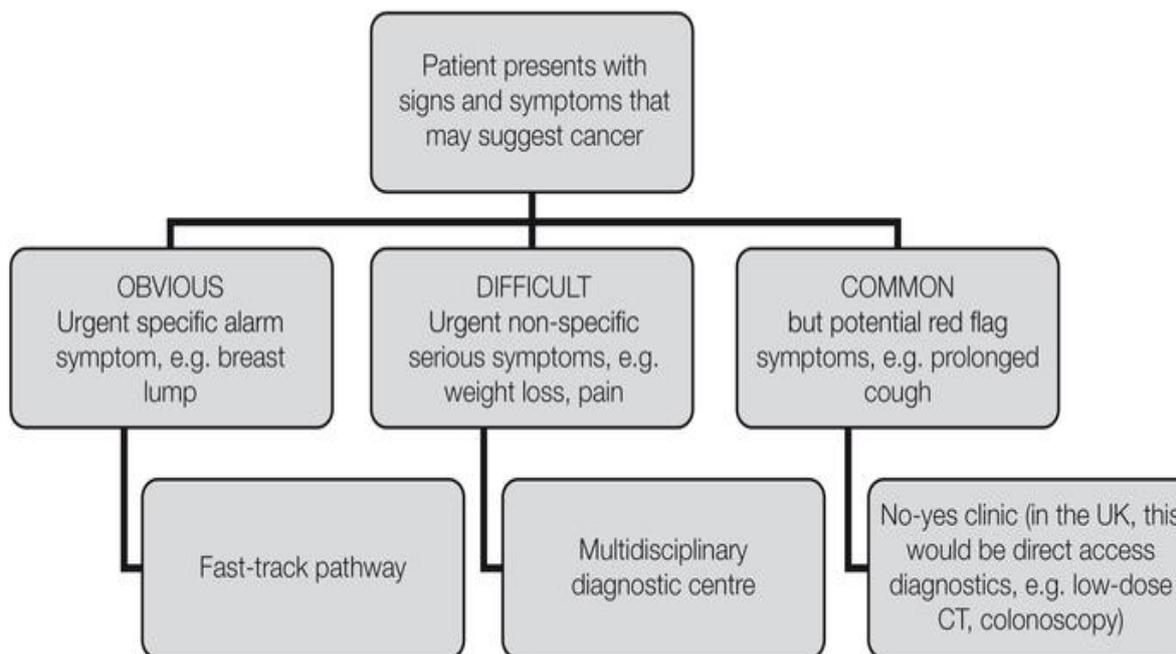
Cue the Rapid Diagnostic Centre or RDC (formally known as the multidisciplinary diagnostic centre). These came out of Wave 2 of the ACE Programme described below and are now being rolled out nationwide. The goal is that every Cancer Alliance should have an RDC by the end of 2020.

What is the evidence?

Denmark lagged behind other European countries in a similar way to the UK, and developed its own strategies for dealing with this (BJC 2015;112:s65). It introduced a model called the '3-legged strategy' which was the precursor of the RDC. The authors of the study explain that the three-legged model was based on the way patients present in primary care. They argue that potential cancer symptoms fall into three groups:

- Obvious alarm symptoms (50%).
- Difficult alarm symptoms (20%).
- Common symptoms but which could indicate a cancer (30%).

Consequently, three referral pathways are needed to address these different groups. But here is the catch – all of them must be swift! The system they developed can be summarised by this flowchart:



Cancer_Autumn 2020

How does a Rapid Diagnostic Centre work?

Rapid Diagnostic Centres were introduced in Denmark in 2012 for patients who were clearly sick with serious symptoms, and where one possible cause could be cancer.

Before referral, GPs perform a set of initial investigations including blood tests, urine analysis and some diagnostic imaging. These are standardised and the results sent to the GP within 4 working days. If no clear explanation is found, the patient is referred to the diagnostic centre that has easy access to a full range of investigations and specialists. Responsibility for the patient is then with secondary care.

A similar model has been adopted in the UK.

What are the typical referral criteria?

In the UK, typical referral criteria include:

- | | |
|---|--|
| <ul style="list-style-type: none">• Unexplained weight loss.• Unexplained abdominal pain.• Severe appetite loss/nausea.• Unexplained non-iron deficient anaemia. | <ul style="list-style-type: none">• Thrombocytosis.• Severe fatigue.• GP clinical suspicion.• Hypercalcaemia (unexplained <12m).• Lymphadenopathy/splenomegaly. |
|---|--|

The most common reason for referral is currently unexplained weight loss. Note that different localities have different referral criteria and procedures – follow your local guidance here.

How are they performing in the UK?

It is estimated that if GPs refer to an RDC with a suspicion of cancer, they will turn out to be correct for 16% of patients (*this is great!*). Other diagnoses are also made.

A recent evaluation of the Welsh pilot of RDCs tells us that (BJGP 2020;70(692):e186):

- They reduce the length of time to get a diagnosis (cancer or non-cancer) from 84 days to 6 days on average if all investigations can be done on the day. If they can't, diagnostic time is still more than halved to 40 days (*even better!*).
- They are cost effective provided they run at 80% capacity.

An evaluation of 5 sites in England showed (BJC 2020; doi:10.1038/s41416-020-0947-y).

- An 8% conversion rate of people being referred to an RDC and receiving a cancer diagnosis. This is excellent.
- The most common cancers diagnosed were upper GI, pancreatic and lung.
- Of those not diagnosed with cancer, 50% received another significant diagnosis.
- GP 'clinical suspicion' was a strong predictor of a subsequent cancer diagnosis.

So, we should use these if we have them. And if we don't have them, we could phone a friendly secondary care colleague/radiologist, etc. but the pathway is unlikely to be as simple. Hopefully, we will soon all have access to Rapid Diagnostic Centres.

What can I do if I don't have access to an RDC?

Phone a friendly secondary care consultant?

This is difficult, though coverage is improving. Many hospital units have alternative pathways which may include general physicians, geratology or radiology.

With thanks to

GPCPD Red Whale

The ACE Programme

The ACE Programme (Accelerate, Coordinate and Evaluate) is an NHS England initiative supported by CRUK and Macmillan which has looked at innovative ways to improve early diagnosis of cancer. It builds on existing local initiatives to produce a body of evidence that should, in the long term, help to inform commissioning. You may have been involved in some of these projects in your area. A summary of this was considered in a recent BJGP editorial (BJGP 2017 DOI:10.3399/bjgp16X684457).

There were 8 main 'themed clusters' of about 60 projects in Wave 1 that have now produced their findings and shared resources that have been developed as part of their workstreams. Evaluations have been supported by DH policy support teams.

Cluster	Project aims	Outcomes
Lung cancer pathway	Identifying optimal features of referral pathways to promote early diagnosis, e.g. straight to CT for abnormal CXR, or open access CT scan to exclude cancer for GPs concerned about patients with a normal CXR at low but not no risk of lung cancer.	A key factor in success was good communication within trusts, and between primary and secondary care, especially radiology services, to ensure urgent detailed imaging was achieved. So far, there is no evidence of improved cure rates, but 60% of those further assessed in this way had malignancy. Patient experience, clinic efficiency and time to first treatment were improved (doi.org/10.3399/bjgp19X701189).
Vague symptoms pathway	<ul style="list-style-type: none"> • Auditing pathways of cancer patients diagnosed after presenting with vague symptoms. • Evaluation of a new diagnostic pathway for 	Outcomes will inform development of services to diagnose: <ul style="list-style-type: none"> • Cancer patients with vague symptoms. • Other difficult-to-diagnose conditions.

With thanks to



	patients with vague symptoms.	<i>e.g. RDCs as discussed above.</i>
IT tools	Implementing the use of the Macmillan Cancer Decision Support Tool integrated into GP computer systems.	<ul style="list-style-type: none"> • These tools were found to be able to support GPs in making decisions about patients with complex presentations. • It served as a reminder to raise awareness of the need to consider cancer in specific situations. • It requires further refinement, and GP training is required for optimal outcomes.
National Bowel Cancer Screening Programme (BCSP) uptake	Improving uptake of screening, especially among vulnerable groups.	<ul style="list-style-type: none"> • Primary care endorsement of the BCSP improves uptake. • There is a template GP letter that can be sent to patients in the resources.
Colorectal cancer pathway	Implementation of various models of straight-to-test pathways for suspected cancer.	<ul style="list-style-type: none"> • These pathways were shown to be appropriate for many, but not all, patients. Telephone triage and clear criteria are necessary.
Pharmacy and other primary care	<p>Working with primary care providers to:</p> <ul style="list-style-type: none"> • Improve recognition of potential lung and bowel cancer symptoms in pharmacy settings. • Allow direct referral for CXR by pharmacists. 	This needs further development, including high-quality training and resources for pharmacists.

With thanks to



	<ul style="list-style-type: none"> • Allow direct referral by optometrists for visual field loss. 	
People at high risk of lung cancer	<p>Piloting:</p> <ul style="list-style-type: none"> • Proactive CT screening for those at high risk (see <i>Lung cancer screening</i> article). • Exploring self-referral for CXR. 	Lung health checks to assess risk and triage to low-dose CT screening now in operation in some areas. See <i>Lung cancer screening</i> article.
Improving screening uptake in vulnerable groups	Exploring ways to remove barriers to screening for a range of vulnerable groups, including those with sensory impairment, learning difficulties or minority ethnic groups.	Outcomes not yet available.